

Appl. No. 09/730,676
Amdt. Dated September 13, 2004
Reply to Office Action of June 18, 2004

REMARKS

Claims 1, 3, 4, 6-12, 14-16, and 18-21 remain pending in this Application.

5 Claims 1, 3, 4, 6, 12, 14-16, 18, and 22 each have been amended once. Claims 2, 5, 13, and 17 each have been canceled without prejudice.

The present invention is directed to a recommender system using "fuzzy-now" for real-time events as claimed. The system is based on the notion that it is less desirable 10 for a user to wait for an excessive amount of time for a real-time event of interest to start, or miss major portions of the real-time event already in progress. The recommender system predicts potential real-time events of interest for the user. The recommender system further incorporates into the system a weighting operation which utilizes a function, or a contribution to a function, that approximates the current time in 15 conjunction to the nominal recommendation operation to yield a final recommendation list for presentment to the user. This function may yield a weighting value and is generally based on current time and at least two of the following variables: start time of a real-time event, end-time of the real-time event, and duration of the real-time event. In this manner, the system provides real-time events of interest to the user that are 20 about to start, or have recently begun, while filtering out those events that will start much later or are almost finished.

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The present system takes into account a specific penalty per unit time for causing the user to wait until the real-time event starts, and a same or different penalty per unit time for every minute the user misses. The function may, for example, increase linearly from a value of zero or some other minimum weighting value at the waiting 5 threshold time to the maximum weighting value of "1" at the start time of the real-time event. The function may thereafter decrease from the max value to zero at the end time of the show.

Referring to the Office Action, claims 12-16 stand rejected as anticipated by 10 Darbee et al. (U.S. Pat. No. 6,130,726). The Office Action states that Darbee features called out in claim 12. The rejection is hereby traversed and reconsideration is respectfully requested.

There is a material difference that may be observed between Darbee and the 15 claimed invention. Darbee merely discloses a remote control display capable of displaying a program guide. Darbee teaches that the remote control device receives and stores data comprising a program guide or content scheduling guide, and that the 24-hour period covered by the program guide will rollover at 4 am each day. (Col. 8, lines 21-23). Darbee fails to teach a recommender system that "chooses via the 20 consumer electronics device at least one real-time event based upon at least one criterion, wherein the at least one criterion of the at least one real-time event is additionally weighted by a factor based on when the real time event is set to begin and

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to end relative to the user's current time to yield a list of real-time event recommendations" as claimed by Applicants in claim 12 (currently amended). There is no teaching in Darbee on utilizing a weighting operation via a function, or a contribution to a function, that approximates the current time in conjunction to the nominal 5 recommendation operation to yield a final recommendation list for presentment to the user.

Accordingly, it will be appreciated that the present claims are directed to a recommender system using "fuzzy-now" as defined in the present Application, for real-time events that differs from what is taught by Darbee. The device taught by Darbee is therefore materially different from the present recommender system as claimed. 10 Accordingly, in view of the above remarks, claims 12 (currently amended) is patentable over Darbee. For the same reasons, claims 14-16, each dependent from claim 12, are patentable over Darbee.

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Referring to the Office Action, claims 1- 11 stand rejected as being unpatentable over Darbee et al. in view of Wehmeyer et al. (U.S. Pat. No. 5,867,226), and claims 18-22 stand rejected as being obvious in view of Darbee. The Office Action states that the only difference between the Darbee device and Applicants' system is the use of a 20 recommendation operation that is determined by a weighting function, such as "fuzzy-now." The Office Action further states that Wehmeyer teaches the use of a weighting function or routine, as shown in Figures 2 and 3, "so that the apparatus can be guided

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to make a prediction of which upcoming shows may be of interest to the viewer." (Col. 2, Lines 38-40). The rejection is hereby traversed and reconsideration is respectfully requested. The remarks made in response to the above anticipation rejection are also applicable herein.

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As previously indicated, Darbee merely discloses a remote control display capable of displaying a program guide. The recommender system as claimed by Applicants incorporates into the system a weighting operation which utilizes a function, or a contribution to a function, that approximates the current time in conjunction to the nominal recommendation operation to yield a final recommendation list for presentment to the user. The Wehmeyer device fails to disclose this feature as well. The Wehmeyer device is designed to provide a predictive agent list in which data is automatically stored whenever a program is watched for a given period of time, for example, 5 minutes or more. The Wehmeyer device performs a materially different operation from Applicants' invention as claimed. Wehmeyer merely maintains a record of the user's viewing habits as a guide to making a prediction of which upcoming shows may be of interest to the user. It does not utilize a weighting function that takes into account the current time and when a particular show starts and ends, as now claimed in claim 1 (currently amended). No teaching or suggestion of this aspect is made anywhere in the reference. As a result, claim 1 (currently amended) and claims dependent thereto are free of the cited references.

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There is no motivation or teaching in Darbee and Wehmeyer in combination or individually to modify their respective devices to include this weighting operation as claimed by Applicants. One of ordinary skill in the art, based on the teachings of the cited references, cannot arrive at the claimed invention. These references clearly do not anticipate or make obvious the claims as now presented. Accordingly, in view of the above remarks, claims 1, 3, 4, and 6-11 are patentable over Darbee in view of Wehmeyer.

With respect to claims 18-22, Darbee merely discloses a remote control display capable of displaying a program guide. The recommender system as claimed by Applicants incorporates into the system a weighting operation which utilizes a function, or a contribution to a function, that approximates the current time in conjunction to the nominal recommendation operation to yield a final recommendation list for presentment to the user. This feature as claimed is absent in Darbee. There is no motivation or suggestion in the prior art to modify the Darbee device to include this weighting operation as claimed by Applicants. The Darbee device is designed to be display an ordinary program guide on a remote control unit. One of ordinary skill in the art, based on the cited reference, therefore cannot arrive at the claimed invention of claims 18-22 as now presented, and therefore are free of these references. Accordingly, in view of the above remarks, claims 18-22 are patentable over Darbee.

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In view of the foregoing, Applicants submit that the present invention is in condition for allowance and early passage to issue is therefore deemed proper and respectfully requested.

5 It is believed that no additional fee is due. However, if any additional fee is due, it should be charged to Deposit Account No. 23-0510.

Respectfully submitted,



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